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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,707	10/24/2000	Galen C. Hunt	MSI-627US	4056

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EXAMINER
PALADINI, ALBERT WILLIAM

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/696,707	HUNT ET AL
	Examiner	Art Unit
	Albert W Paladini	2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>24 October 2000</u>.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-58</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-58</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1-58 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter,

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention.

The terminology "scale independent model" on lines 15-16 of page 7 does not

appear to be relevant to modeling the type of computer data described in the first

paragraph of page 7, as "scale independent" refers to geometric entities. A data base

search performed by the examiner did not result in any instances of scale independence

that were related to computer applications that did not have some geometric or scaling

factor.

Appropriate correction and clarification is required.

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter, which the applicant regards as his invention.

4.   Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being

incomplete for omitting essential steps, such omission amounting to a gap between the

steps. See MPEP § 2172.01.

Claim 1

The phrase "scale-independent" is not understood in the context of a "logical

model of an application to be implemented by a distributed computer system." A scale

model generally refers to a representation of a physical entity that is reduced in size. It

does not appear to relate to a "logical model."

Lines 2-3 recite, "forming a scale-independent logical model of an application to

be implemented by a distributed computer system." There is nothing specific which

explains how a "distributed computer system" implements a model. Specific steps are

required to explain how the desired objective is accomplished. There are no steps to

explain how elements of the distributed computer system model elements logical

elements of an application.

Lines 5-6 recite, "converting individual model components into one or more

instances representative of physical resources." It is not understood how a component

may be converted to an instance or what is meant by an instance? The definition of

"instance" provided by the Webster's II New Riverside University Dictionary published

1n 1994 is as follows:

Instance n. 1. Something illustrative of a class or group 2. A legal

proceeding or process 3. A step in a process.

The claim must provide a clear explanation of what is meant by "instance" in the context of this invention. In addition, the use of the term "converted" is not understood. If for example, a model component is a term in a mathematical equation, how may this be converted to the abstract term "instance?"

The claim is written like a wish list with unclear objectives, with steps that imply some sort of modeling function.

Claim 9

Lines 2-3 recite, "constructing an application for a distributed computer system according to a logical model." There are no steps reciting the creation of the "logical model."

Claim 18

The phrase "creating one or more instances of each component in the logical model" is not understood. Note the rejection of claim 1 regarding the imprecise use of the term "instance." More steps are needed to describe what an instance is and how it is created.

Claim 25

The phrase "creating one or more instances of each component in the logical model" is not understood. Note the rejection of claim 1 regarding the imprecise use of

the term "instance." More steps are needed to describe what an instance is and how it is created.

Although the specification provides a dictionary for the claims, and the claims may be broader than the specification; each claim must be complete and self consistent in itself. For a structural claim, the recitation must describe clearly how all the elements are physically connected together. For a functional claim, the recitation must describe clearly how the elements are physically connected together, and in addition, the sequential logical operation of the element working cooperatively together must be understood. For a method claim, the recitation must describe a sequential operation where each step further limits the previous step. In addition, even though the method claim is procedural, each step must be supported with sufficient physical means for accomplishing the step.

Appropriate correction and clarification are required.

5.   Claims 33-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 33

Line 5 recites "a core converter to create one or more instances of the logical model." It is not understood how a core converter creates an instance or what is meant

by an instance? The definition of "instance" provided by the Webster's II New Riverside

University Dictionary published 1n 1994 is as follows:

Instance n. 1. Something illustrative of a class or group 2. A legal

proceeding or process 3. A step in a process.

The claim must provide a clear explanation of what is meant by "instance" in

the context of this invention. In addition, the use of the term "converted" is not

understood. If for example, a model component is a term in a mathematical equation,

how may this be converted to the abstract term "instance?"

Appropriate correction and clarification are required.

Claim 39

It is not understood how a "service running state" is an element or component

of a system.

The phrase "maintain a logical model of a service application" is not

understood. Assuming that a model of a function has been developed for some

application, and that it is stored in some medium, an explanation is needed to describe

what maintaining the model entails.

Line 6 recites "a resource manager to allocate nodes for the instances." There

is no antecedent basis for "instances." It is not understood what is meant by an

instance? The definition of "instance" provided by the Webster's II New Riverside

University Dictionary published 1n 1994 is as follows:

Instance n. 1. Something illustrative of a class or group 2. A legal

proceeding or process 3. A step in a process.

The claim must provide a clear explanation of what is meant by "instance" in

the context of this invention. In addition, the use of the term "converted" is not

understood. If for example, a model component is a term in a mathematical equation,

how may this be converted to the abstract term "instance?"

Claim 45

The phrase "scale-independent" is not understood in the context of a "logical

model of a service application." A scale model generally refers to a representation of a

physical entity that is reduced in size. It does not appear to relate to a "logical model."

Lines 6-7 recite "means for creating one or more instances of the model

components according to a desired scale of the service application." The claim must

provide a clear explanation of what is meant by "instance" in the context of this

invention, and how the term "scale" is applied to a "service application."

Claim 50

The phrase "maintain a logical model of an application" is not understood.

Assuming that a model of a function has been developed for some application, and that

it is stored in some medium, an explanation is needed to describe what maintaining the

model entails.

Lines 7-8 recites "convert the model components into one or more instances representative of physical resources." It is not understood what is meant by an instance? The definition of "instance" provided by the Webster's II New Riverside University Dictionary published 1n 1994 is as follows:

Instance n. 1. Something illustrative of a class or group 2. A legal proceeding or process 3. A step in a process.

The claim must provide a clear explanation of what is meant by "instance" in the context of this invention. In addition, the use of the term "convert" is not understood. If for example, a model component is a term in a mathematical equation, how may this be converted to the abstract term "instance?"

Claim 53

Lines 8-9 recite "a first structure to store module information pertaining to one or more module instances." It is not understood what is meant by an instance? The definition of "instance" provided by the Webster's II New Riverside University Dictionary published 1n 1994 is as follows:

Instance n. 1. Something illustrative of a class or group 2. A legal proceeding or process 3. A step in a process.

The claim must provide a clear explanation of what is meant by "instance" in the context of this invention here and in lines 12 and 14.

Appropriate correction and clarification are required.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7.   Claims 1-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu

(5031089).

       This rejection is made to the extent that the claims are understood, by

addressing specific elements recited, and by speculatively inferring how they might be

logically combined to perform a useful function or technical objective.

       Liu discloses a method for forming a logical model of an application to be
implemented by a distributed computer system as explained in column 7 lines 13-41
where he states "The foregoing objects have been achieved in a distributed heterogeneous
computer system having a plurality of computer nodes each operatively connected through a
network interface to a network to provide for communications and transfers of data between the
nodes and wherein the nodes each have a queue for containing jobs to be performed, by the
improvement of the present invention for dynamically reallocating the system's resources for
optimized job performance. There is first logic at each node for dynamically and periodically
calculating and saving a workload value as a function of the number of jobs on the node's queue.
Second logic is provided at each node for transferring the node's workload value to other nodes
on the network at the request of the other nodes. Finally, there is third logic at each node
operable at the completion of each job. The third logic includes, logic for checking the node's
own workload value, logic for polling all the other nodes for their workload value if the checking
node's workload value is below a pre-established value indicating the node as being underutilized
and available to do more jobs, logic for checking the workload values of the other nodes as
received, and logic for transferring a job from the queue of the other of the nodes having the
highest workload value over a pre-established value indicating the other of the nodes as being
overburdened and requiring job relief to the queue of the checking node. The third logic is also
operable periodically when the node is idle."

Relevant Prior Art

8.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Pulsipher (5948055) discloses a distributed Internet monitoring system and

method that implement a distributed Internet monitoring model, where cooperating management

and/or collection stations can share topology data in an efficient manner. The topology data

represents the devices and interconnections of the network and can be used to display various

conceptual views of the network at a management station. In accordance with the Internet

monitoring system, different sets of topology data are discovered with corresponding sets of

computer-based stations, such as management stations or collection stations, by discovering the

topology at respective regions of the network .

Ambler (6393456) discloses a computer communication network, which may be

utilized in distributed computing environments where tasks are performed by remote processing

devices that are linked through a communications network. In a distributed computing

environment, program modules may be located in both local and remote memory storage

devices.

Weschler (6470332) discloses a distributed computing environment such as an
enterprise computing system using public communication channels such as the Internet. The
invention is that it is readily scaled upwardly and downwardly to meet the needs of a particular
application. Accordingly, unless specified to the contrary, the invention is applicable to
significantly larger, more complex network environments as well as small network environments
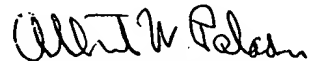such as conventional local area network ("LAN") systems.

9.   Any inquiry concerning this communication or earlier communication from the examiner should be direct to Albert W. Paladini whose telephone number is (703) 308-2005. The examiner can normally be reached from 7:30 to 3:30 PM on Monday, Tuesday, Thursday, and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Leo P. Picard, can be reached on (703) 308-0538. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Albert W. Paladini
January 13, 2004   Primary Examiner
                                                       Art Unit 2125